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EXAMINER	
MOLINARI, MICHAEL J	
ART UNIT	**PAPER NUMBER**
2665	13

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/499,922	LEDSHAM ET AL.	
	Examiner	Art Unit	
	Michael J Molinari	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 February 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 5-12, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sayers et al. (U.S. Patent No. 6,539,237) in view of Kumaki et al. (U.S. Patent No. 6,473,411), further in view of Huang et al. (U.S. Patent No. 6,292,829).

3. Referring to claim 1, Sayers et al. disclose a system for providing management protocol mediation between wireless networks comprising: a first wireless network (see Fig. 1, #14 and see column 8, lines 53-59) operable to communicate with a mobile station (see Fig. 1, #4) over a wireless interface; a second wireless network (Public Wireless Network, see 1, #15, see also column 8, lines 26-27) having an operations and maintenance center (OMC) coupled thereto (OMC-R and OMC-S, see Fig. 1, #7 and #9); the OMC operable to manage the first wireless network using a first management protocol (See column 8, lines 5-8, which show that the private wireless network is IP-based. Column 15, lines 50-65 show that the management protocol used for the private wireless network is SNMP and that the OAM commands are from an OMC). Sayers et al. further disclose that the OMC (OMC-R) is used to manage the second network (see column 5, lines 44-67 and column 6, lines 1-2). Sayers et al. differ from claim 1 in that they fail to disclose what management protocol is used to manage the second wireless network. However,

the use of a management protocol in a public wireless network such as that taught by Sayers et al. that is not SNMP is well known in the art. For example, Kumaki et al. teach the use of CMIP (see column 16, lines 17-43), which is a common network management protocol, for managing a wireless network, which has the advantage of being a standard network management protocol that can be used in public wireless networks. One skilled in the art would have recognized the advantage of using CMIP as taught by Kumaki et al. Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate the use of CMIP as taught by Kumaki et al. into the invention of Sayers et al. to achieve the advantage of managing the first wireless network using a standard network management protocol. Sayers et al. in view of Kumaki et al. differ from claim 1 in that they fail to disclose the use of a protocol mediator coupled to the first and second wireless networks, the protocol mediator operable to translate between the first management protocol and the second management protocol. However, the use of a protocol mediator for enabling network managers to manage networks running on other protocols are well known in the art. For example, Huang et al. teach the use of just such a protocol mediator (see column 2, lines 19-32), which has the advantage of enabling a network manager to manage multiple networks using a plurality of network management protocols. One skilled in the art would have recognized the advantage of using a protocol mediator as taught by Huang et al. Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate the use of a protocol mediator as taught by Huang et al. into the invention of Sayers et al. in view of Kumaki et al. to achieve the advantage of enabling a network manager to manage multiple networks using a plurality of network management protocols.

4. Referring to claim 2, Kumaki et al. disclose that the second management protocol comprises a Common Management Information Protocol management protocol (see column 16, lines 17-43).

5. Referring to claim 3, Sayers et al. disclose that the first management protocol comprises a Simple Network Management Protocol management protocol (See column 8, lines 5-8, which show that the private wireless network is IP-based. Column 15, lines 50-51 show that the management protocol used for the private wireless network is SNMP).

6. Referring to claim 5, Sayers et al. disclose that the first wireless network comprises: a base station (BTS, see Fig. 1, #12) operable to communicate with the mobile station (see Fig. 1, #4) over the wireless interface; and a wireless adjunct internet platform (WARP) (BSC, see Fig. 1, #16) coupled to the base station and operable to communicate with the mobile station through the base station (see column 3, lines 42-48).

7. Referring to claim 6, Sayers et al. disclose that the WARP (BSC) is operable to manage the base station using a third management protocol (see column 3, lines 42-48) and that the BSC uses different interfaces between the BSS and NSS. Sayers et al. differ from claim 6 in that they fail to disclose that the WARP comprising a mediation function operable to translate between the second management protocol and the third management protocol. However, the Examiner takes official notice that such conversion by a BSC in order to communicate using different protocols on different interfaces is old and well known in the art.

8. Referring to claim 7, Sayers et al. disclose that the third management protocol comprises a Global System for Mobile communication (GSM) Abis object oriented management protocol (see column 3, lines 42-43).

9. Referring to claim 8, Sayers et al. disclose a public land mobile network (PLMN) gateway (MSC, see Fig. 1, #17) coupling the WARP and the OMC, the PLMN gateway operable to communicate with the WARP and the OMC.

10. Referring to claim 9, Sayers et al. differ from claim 9 in that they disclose an A-Interface coupling the WARP and the PLMN gateway, not an Internet Protocol (IP) network coupling the WARP and the PLMN gateway. However, the Examiner takes official notice that the use of an IP network to couple the BSC to the MSC is old and well known in the art.

11. Referring to claim 10, Sayers et al. disclose a management center for providing management protocol mediation between wireless networks comprising: an operations and maintenance center (OMC) (see Fig. 1, #7 and #9) operable to manage a first (Public Wireless Network, see Fig. 1, #15) and second wireless networks (Private Network, see Fig. 1, #14), the OMC further operable to manage the second network using a second management protocol (See column 8, lines 5-8, which show that the private wireless network is IP-based. Column 15, lines 50-65 show that the management protocol used for the private wireless network is SNMP and that the OAM commands are from an OMC). Sayers et al. differ from claim 10 in that they fail to disclose the use of a first management protocol, by the OMC, to manage the first wireless network. However, the use of a management protocol in a wireless network such as that taught by Sayers et al. is well known in the art. For example, Kumaki et al. teach the use of CMIP (see column 16, lines 17-43), which is a common network management protocol, for managing a wireless network, which has the advantage of being a standard network management protocol that can be used in wireless networks. One skilled in the art would have recognized the advantage of using CMIP as taught by Kumaki et al. Therefore, it would have been obvious to a

person with ordinary skill in the art at the time of the invention to incorporate the use of CMIP as taught by Kumaki et al. into the invention of Sayers et al. to achieve the advantage of managing the first wireless network using a standard network management protocol. Sayers et al. in view of Kumaki et al. differ from claim 10 in that they fail to disclose the use of a protocol mediator coupled to the first and second wireless networks, the protocol mediator operable to translate between the first management protocol and the second management protocol. However, the use of protocol mediators to enable network managers to manage networks running on other protocols are well known in the art. For example, Huang et al. teach the use of just such a protocol mediator (see column 2, lines 19-32), which has the advantage of enabling a network manager to manage multiple networks using a plurality of network management protocols. One skilled in the art would have recognized the advantage of using a protocol mediator as taught by Huang et al. Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate the use of a protocol mediator as taught by Huang et al. into the invention of Sayers et al. in view of Kumaki et al. to achieve the advantage of enabling a network manager to manage multiple networks using a plurality of network management protocols.

12. Referring to claim 11, Kumaki et al. disclose that the first management protocol comprises a Common Management Information Protocol management protocol (see column 16, lines 17-43).

13. Referring to claim 12, Sayers et al. disclose that the second management protocol comprises a Simple Network Management Protocol management protocol (see column 8, lines 5-

8, which show that the private wireless network is IP-based. Column 15, lines 50-51 show that the management protocol used for the private wireless network is SNMP).

14. Referring to claim 14, Sayers et al. in view of Kumaki et al., further in view of Huang et al. differ from claim 4 in that they fail to disclose a router coupled to the OMC and the protocol mediator, the router operable to transmit and receive management messages over an Internet Protocol (IP) network. However, the Examiner takes official notice that the use of an IP network to couple the BSC to the MSC is old and well known in the art and that IP networks use routers to facilitate communication between nodes.

15. Referring to claim 15, Sayers et al. in view of Kumaki et al., further in view of Huang et al. differ from claim 4 in that they fail to disclose that the OMC communicates with the protocol mediator through the router. However, the Examiner takes official notice that the use of an IP network to couple the BSC to the MSC is old and well known in the art and that IP networks use routers to facilitate communication between nodes.

16. Referring to claim 16, Sayers et al. disclose a method comprising the step of managing a second wireless network (Private Network, see Fig. 1, #14) using a second management protocol (SNMP, see column 15, lines 50-51). Sayers et al. further disclose a second wireless network (Public Wireless Network, see Fig. 1, #15), but are silent as to which protocol to use to manage the network. However, the use of a management protocol in a wireless network such as that taught by Sayers et al. is well known in the art. For example, Kumaki et al. teach the use of CMIP (see column 16, lines 17-43), which is a common network management protocol, for managing a wireless network, which has the advantage of being a standard network management protocol that can be used in wireless networks. One skilled in the art would have recognized the

advantage of using CMIP as taught by Kumaki et al. Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate the use of CMIP as taught by Kumaki et al. into the invention of Sayers et al. to achieve the advantage of managing the first wireless network using a standard network management protocol. Sayers et al. in view of Kumaki et al. differ from claim 16 in that they fail to disclose translating between the first management protocol and the second management protocol. However, the use of protocol mediators that perform translation to enable network managers to manage networks running on other protocols are well known in the art. For example, Huang et al. teach the use of just such a protocol mediator (see column 2, lines 19-32), which has the advantage of enabling a network manager to manage multiple networks using a plurality of network management protocols. One skilled in the art would have recognized the advantage of using a protocol mediator as taught by Huang et al. Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate the use of a protocol mediator as taught by Huang et al. into the invention of Sayers et al. in view of Kumaki et al. to achieve the advantage of enabling a network manager to manage multiple networks using a plurality of network management protocols.

17. Referring to claim 17, Kumaki et al. disclose that the first management protocol comprises a Common Management Information Protocol management protocol (see column 16, lines 17-43).

18. Referring to claim 18, Sayers et al. disclose that the second management protocol comprises a Simple Network Management Protocol management protocol (See column 8, lines

5-8, which show that the private wireless network is IP-based. Column 15, lines 50-51 show that the management protocol used for the private wireless network is SNMP).

19. Referring to claim 19, Huang et al. disclose that translating between the management protocols comprises: mapping an instruction supported by the first protocol to an equivalent instruction supported by the second protocol; mapping a parameter supported by the first protocol to an equivalent parameter supported by the second protocol; and composing a message supported by the second protocol using the equivalent instruction and the equivalent parameter (see Figures 5A and 5B; Huang et al. teach the method throughout the reference, however, column 6, lines 33-51, column 7, lines 17-20, and column 9, lines 40-44, illustrate details that are especially relevant). This method has the advantage of allowing network management using two network protocols and a single MIB (see column 2, lines 45-48). One skilled in the art would have recognized the advantage of translating between SNMP and CMIP as taught by Huang et al. Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate the method of translating between SNMP and CMIP as taught by Huang et al. into the invention of Sayers et al. in view of Kumaki et al., further in view of Huang et al. to achieve the advantage of allowing network management using two network protocols and a single MIB.

20. Referring to claim 20, Sayers et al. disclose the steps of: managing a base station in the second wireless network using a third management protocol (see column 3, lines 42-48) and that the BSC uses different interfaces between the BSS and NSS. Sayers et al. differ from claim 20 in that they fail to disclose translating between the second and third management protocols.

However, the Examiner takes official notice that such conversion by a BSC in order to communicate using different protocols on different interfaces is old and well known in the art.

21. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sayers et al. in view of Kumaki et al., further in view of Huang et al. as applied to claim 1 above, and further in view of Newton ("Newton's Telecom Dictionary, 13th Edition").

22. Referring to claim 4, Sayers et al. in view of Kumaki et al., further in view of Huang et al. differ from claim 4 in that they fail to disclose that the protocol mediator is coupled to the OMC by a first Telecommunications Network Management interface, and the protocol mediator is coupled to the first wireless network by a second Telecommunications Network Management interface. However, the use of TMN interfaces to connect to networks using network management protocols such as CMIP and SNMP is old and well known in the art. For example, Newton teaches the use of TMN interfaces to connect to networks using CMPI and SNMP and teaches that the interfaces have the advantage of being useful in multi-service environments. One skilled in the art would have recognized the advantage of using TMN interfaces as taught by Newton. Therefore, it would have been obvious for a person with ordinary skill in the art at the time of the invention to incorporate the use of TMN interfaces as taught by Newton into the invention of Sayers et al. in view of Kumaki et al., further in view of Huang et al. to achieve the advantage of using interfaces adapted for use in a multi-service environment.

23. Referring to claim 13, Sayers et al. in view of Kumaki et al., further in view of Huang et al. differ from claim 13 in that they fail to disclose that the protocol mediator is coupled to the OMC by a Telecommunications Network Management interface. However, the use of TMN interfaces to connect to networks using network management protocols such as CMIP and

SNMP is old and well known in the art. For example, Newton teaches the use of TMN interfaces to connect to networks using CMPI and SNMP and teaches that the interfaces have the advantage of being useful in multi-service environments. One skilled in the art would have recognized the advantage of using TMN interfaces as taught by Newton. Therefore, it would have been obvious for a person with ordinary skill in the art at the time of the invention to incorporate the use of TMN interfaces as taught by Newton into the invention of Sayers et al. in view of Kumaki et al., further in view of Huang et al. to achieve the advantage of using interfaces adapted for use in a multi-service environment.

Response to Arguments

24. Applicant's arguments filed 17 February 2004 have been fully considered but they are not persuasive.

25. Applicant has argued that Sayers et al. fail to teach monitoring the private network. However, column 15, lines 50-65 of Sayers et al. shows that the OMC-R is used to manage the P-BTS, which is part of the private network. Applicant has further argued that Sayers et al. fail to disclose the use of a second management protocol to manage the private network. The examiner has shown that Sayers et al. teach the use of an SNMP MIB based on commands from the OMC-R for management of the private network (see column 15, lines 50-65). Applicant has argued that Sayers et al. fail to teach that a separate management protocol is used to manage the public wireless network. The examiner has conceded this point in every office action. Sayers et al. are silent as to which protocol is used to manage the public wireless network. Therefore, the

examiner has relied on the Kumaki et al. reference, which teaches that public wireless networks such as that disclosed by Sayers et al. typically use CMIP as a management protocol.

26. Applicant has argued that the examiner has failed to provide a motivation to combine Sayers et al. and Kumaki et al. However, as stated by the applicant immediately thereafter, the examiner did provide a motivation.

27. Applicant has argued that the OMC-R of Sayers et al. "cannot handle two different management protocols". However, the Applicant has provided no support for this statement, nor is there any teaching in the Sayers et al. reference to support such an assertion. Applicant has further argued that, because the OMC-R of Sayers et al. uses an SNMP MIB for network management that it *cannot* use CMIP as a network protocol. Again, Applicant has provided no support for this statement nor is there any teaching in the Sayers et al. reference to support such an assertion. Furthermore, there is a teaching in the art that suggests just the opposite, which is found in U.S. Patent No. 6,466,583 to Laraqui, which teaches a system for managing networks using both SNMP and CMIP.

28. Applicant has argued that it is improper to combine Huang et al. with Sayers et al. and Kumaki et al. because Sayers et al. only teach the use of a single management protocol, thus eliminating the need for a gateway such as that taught by Huang et al. However, the examiner has combined Huang et al. with Sayers et al. in view of Kumaki et al., which yields the teaching that two management protocols are used, thus providing a use for a device such as that taught by Huang et al.

Conclusion

29. This is a continuation of applicant's earlier Application No. 09/499,922. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Molinari whose telephone number is (703) 305-5742. The examiner can normally be reached on Monday-Thursday 8am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJM

Michael Joseph Molinari

ALPUS H. HSU
PRIMARY EXAMINER